

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A method to generate a formatted trace for a second device embedded in a first device, comprising the steps of:

providing source code comprising a trace entry;

compiling by said first device said source code to form a second device code image comprising a trace description string and a trace description string address, wherein said trace description string comprises one or more data placeholders, wherein each of said one or more data placeholders are selected from the group consisting of @w, @h, and @b, wherein the data placeholder @w indicates 32 bits of data, and wherein the data placeholder @h indicates 16 bits of data, and wherein the data placeholder @b indicates 8 bits of data;

assigning said trace description string address as the traceId;

creating a database comprising said trace description string and said trace description string address;

uploading said second device code image to said second device;

generating trace data using said second device code image;

downloading said trace data to said first device;

merging said trace data and said database; and

forming a formatted trace.

2. (original) The method of claim 1, wherein said uploading step and said generating

step further comprise the steps of:

 forming a stripped code by removing said trace description string from said second device code image;

 uploading said stripped code to said second device;

 generating trace data using said stripped code.

3. (original) The method of claim 1, further comprising the steps of:

 providing trace directives;

 detecting said trace entry;

 forming a trace statement using said directives and said trace entry.

4. (original) The method of claim 3, wherein said first device comprises a pre-processor, further comprising the steps of:

 providing a trace entry comprising a trace macro;

 replacing by said pre-processor said trace macro with a function call using said directives.

5. (original) The method of claim 4, wherein said first device comprises a compiler, further comprising the step of forming said trace statement by said compiler using said directives.

6. (original) The method of claim 5, wherein said second device comprises a trace buffer, further comprising the steps of:

 writing said trace data to said trace buffer;

 detecting an error in said second device;

 discontinuing writing trace data to said trace buffer.

7. (currently amended) An article of manufacture comprising a computer useable medium having computer readable program code disposed therein to generate a formatted trace for a second device embedded in a first device, the computer readable program code comprising a series of computer readable program steps to effect:

receiving a source code comprising a trace entry;

compiling said source code to form a second device code image comprising a trace description string and a trace description string address, wherein said trace description string comprises one or more data placeholders, wherein each of said one or more data placeholders are selected from the group consisting of @w, @h, and @b, wherein the data placeholder @w indicates 32 bits of data, and wherein the data placeholder @h indicates 16 bits of data, and wherein the data placeholder @b indicates 8 bits of data;

assigning said trace description string address as the traceId;

creating a database comprising said trace description string and said trace description string address;

uploading to said second device said second device code image;

downloading trace data generated by said second device using said second device code image;

merging said trace data and said database; and

forming a formatted trace.

8. (original) The article of manufacture of claim 7, said computer readable program code further comprising a series of computer readable program steps to effect:

forming a stripped code by removing said trace description string from said second

- device code image;
- uploading said stripped code to said second device;
- downloading trace data formed by said second device using said stripped code.
9. (original) The article of manufacture of claim 7, the computer readable program code comprising a series of computer readable program steps to effect:
- receiving trace directives;
- detecting said trace entry;
- forming a trace statement using said directives and said trace entry.
10. (original) The article of manufacture of claim 9, the computer readable program code comprising a series of computer readable program steps to effect:
- receiving a trace entry comprising a trace macro;
- replacing said trace macro with a function call using said directives.
11. (original) The article of manufacture of claim 10, wherein said article of manufacture comprises a compiler, the computer readable program code comprising a series of computer readable program steps to effect forming said trace statement by said compiler using said directives.
12. (currently amended) A computer program product embodied in a computer memory and usable with a programmable computer processor having computer readable program code embodied therein method to generate a formatted trace for a second device embedded in a first device, comprising:
- computer readable program code which causes said programmable computer processor to receive a source code comprising a trace entry;

computer readable program code which causes said programmable computer processor to compile said source code to form a second device code image comprising a trace description string and a trace description string address, wherein said trace description string comprises one or more data placeholders, wherein each of said one or more data placeholders are selected from the group consisting of @w, @h, and @b, wherein the data placeholder @w indicates 32 bits of data, and wherein the data placeholder @h indicates 16 bits of data, and wherein the data placeholder @b indicates 8 bits of data;

computer readable program code which causes said programmable computer processor to assign said trace description string address as the traceld;

computer readable program code which causes said programmable computer processor to create a database comprising said trace description string and said trace description string address;

computer readable program code which causes said programmable computer processor to upload to said second device said second device code image;

computer readable program code which causes said programmable computer processor to receive trace data generated by said second device using said second device code image;

computer readable program code which causes said programmable computer processor to merge said trace data and said database; and

computer readable program code which causes said programmable computer processor to form a formatted trace.

13. (original) The computer program product of claim 12, further comprising computer readable program code which causes said programmable computer processor to

computer readable program code which causes said programmable computer processor to form a stripped code by removing said trace description string from said second device code image;

computer readable program code which causes said programmable computer processor to upload to said second device said stripped code;

computer readable program code which causes said programmable computer processor to receive trace data generated by said second device using said stripped code.

14. (original) The computer program product of claim 12, further comprising:

computer readable program code which causes said programmable computer processor to receive trace directives;

computer readable program code which causes said programmable computer processor to detect said trace entry;

computer readable program code which causes said programmable computer processor to form a trace statement using said directives and said trace entry.

15. (original) The computer program product of claim 14, further comprising:

computer readable program code which causes said programmable computer processor to receive a trace entry comprising a trace macro;

computer readable program code which causes said programmable computer processor to replace said trace macro with a function call using said directives.

16. (original) The computer program product of claim 14, further comprising computer readable program code which causes said programmable computer processor to form said trace statement using a compiler and said directives.